

# nih record



**ABOVE** • Sarah Crowell, acting as an NIH teleworker, is dressed comfortably for work. Read about other benefits of working from home in story at right.

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## Good for Employees, Good for NIH

### Telework Festival Stresses Benefits of Working Offsite

By Carla Garnett

**L**eo's workday started badly and only got worse. In a hurry, he left home without breakfast, got a flat in rainy rush-hour traffic on I-270, and was splashed by the NIH shuttle bus while changing the tire. He arrived an hour late to campus only to realize he'd forgotten his ID badge. After going through the visitor center entrance and searching for a parking spot, he was just getting to his desk when his boss dropped by to remark on

his tardiness, push for urgent delivery of an assignment and wave off Leo's application for telework as "a bunch of hooley."

By day's end, Leo would have to wrest a meager lunch of crackers from a vending machine, add a face-to-face meeting at an off-campus building to his already full schedule, navigate home through a fluke snowstorm and miss his son's game-win-

SEE **TELEWORK**, PAGE 6

*In a lighthearted skit, onsite employee Leo Gumapas deals with a flat tire during his rush-hour commute, as teleworker Sarah (r) lingers over breakfast at home.*

## 'Hard to Un-Ring the Bell'

### Vaccine Advocate Offit Learns Media Pitfalls in Quest to Educate

By Rich McManus

In the myth of Sisyphus, our hero is continually frustrated when the boulder he is pushing up the mountainside rolls backward just as he approaches the summit. For veteran vaccine researcher, and now perhaps the nation's default defender of vaccine use, Dr. Paul Offit, his Sisyphusian effort to place the boulder of vaccine safety and efficacy atop the mountain of evidence is thwarted not by the boulder's rolling back, but by the mountain gaining a spurious kind of altitude, based largely on guff.



Dr. Paul Offit

Offit, who is chief of the division of infectious

SEE **OFFIT**, PAGE 4

### Straus Lecturer Unravels Mysteries of Pain and the Brain

What if you could "pump up" regions in your brain to help manage chronic pain, like you build up muscles? That's one of the theories holding scientific promise for addressing pain.

Recently, Dr. Sean Mackey gave the Stephen E. Straus Lecture in the Science of Complementary and Alternative Medicine, "Opening Windows to the Brain: Lessons Learned from the Neuroimaging of Pain."

Mackey is chief of the division of pain management and associate professor in the departments of anesthesia, neurosciences and neurology at Stanford University School of Medicine. He is also director of Stanford's Systems Neuroscience and Pain Laboratory and an NIH grantee. He has been at the forefront of research using real-time fMRI to modify brain activity and, as a consequence, pain.

Mackey emphasized a recent Institute of Medicine report that noted the high U.S. burden from chronic pain, which affects 116 million

SEE **STRAUS LECTURE**, PAGE 8

The NIH Record is recyclable as office white paper.



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NIH...Turning Discovery Into Health

nih record

## briefs

### STEP Forum on Tomorrow's Scientists

The staff training in extramural programs (STEP) committee will present an Administrative Strategies forum on the topic "Tomorrow's Scientists: Will They Be Prepared in 2050?" on Tuesday, Jan. 24, from 9 a.m. to noon in Lister Hill Auditorium, Bldg. 38A.

New epidemics, new sources of energy, new interventions—who will meet future challenges? Our children and our children's children; but will they be ready? Only if we engage them and maintain their interest in science, technology, engineering and math. Come join us as we examine the role of NIH, educators and the public in training scientists for the 21st century.

### Magazine Lauds Two NIH-Bred Diets

Two diets created by NIH topped *U.S. News & World Report's* second annual ranking of the best diet plans overall. Taking first place for the second year in a row was NHLBI's DASH (Dietary Approaches to Stop Hypertension) diet, followed by the heart institute's Therapeutic Lifestyle Changes (TLC) diet.

In its Jan. 3 edition, the magazine rated 25 popular diets, using a panel of 22 experts in diet and nutrition who rated the regimens based on 7 categories including ease of use and effectiveness in promoting weight loss.

"DASH was developed to fight high blood pressure, not as an all-purpose diet," said the magazine. "But it certainly looked like an all-star to our panel of experts, who gave it high marks for its nutritional completeness, safety, ability to prevent or control diabetes and role in supporting heart health. Though obscure, it beat out a field full of better-known diets."

*Your Guide to Lowering Your Blood Pressure with DASH* is available for download at [www.nhlbi.nih.gov/health/public/heart/hbp/dash/new\\_dash.pdf](http://www.nhlbi.nih.gov/health/public/heart/hbp/dash/new_dash.pdf); a 6-page summary can be downloaded at [www.nhlbi.nih.gov/health/public/heart/hbp/dash/dash\\_brief.pdf](http://www.nhlbi.nih.gov/health/public/heart/hbp/dash/dash_brief.pdf).

TLC, according to *U.S. News*, "is a very solid diet plan created by the National Institutes of Health. It has no major weaknesses, and it's particularly good at promoting cardiovascular health. One expert described it as a 'very healthful, complete, safe diet.' But it requires a 'do-it-yourself' approach, in contrast to the hand-holding provided by some commercial diets."

To download *Your Guide to Lowering Your Cholesterol with TLC*, visit [www.nhlbi.nih.gov/health/public/heart/chol/chol\\_tlc.pdf](http://www.nhlbi.nih.gov/health/public/heart/chol/chol_tlc.pdf).

### Volunteer to Tutor English at NIH

The Volunteer Program for English Proficiency (VPEP) at NIH is looking for tutors to lead beginner-level classes. Teaching is both low-stress and fun and provides an opportunity to share and interact with NIH housekeeping staff motivated to learn English.

Volunteer instructors do not need to have teaching experience or know another language; they just need a desire to reach out and help. All teaching materials and training will be provided. The only requirement is a commitment to teach class during one lunch period every week. The classes are currently held Monday to Thursday from 11:30 a.m. to 12:30 p.m. in Bldg. 31 and in the library of Bldg. 10. The program hopes to recruit new volunteers for these sites and also to expand to other buildings on campus and at other NIH sites. If interested, contact Maria G. Hessie ([mhessie@niaid.nih.gov](mailto:mhessie@niaid.nih.gov)) or Rob Rivers ([robert.rivers@nih.gov](mailto:robert.rivers@nih.gov)) for more information.

### Symposium Addresses Glycoscience, Clinical Practice

The NCI-funded Alliance of Glycobiologists for Detection of Cancer and Cancer Risk will host a symposium on Tuesday, Jan. 24, titled "Interfacing Glycoscience with Disease and Clinical Practice." It will take place at Natcher Conference Center from 8:30 a.m. to 5 p.m.

The symposium will highlight key developments in how sugars are used to make complex structures critical for many functions in life. Presentations will emphasize the many ways glycans and their binding proteins influence fundamental biological processes and how these discoveries are advancing medicine.

No advanced registration is required. For an agenda, visit <http://glycomics.cancer.gov/meetings-events/20120124>. For more information, contact Karl Krueger at (301) 594-1044 or email [NCIGlycomicsAlliance@mail.nih.gov](mailto:NCIGlycomicsAlliance@mail.nih.gov).

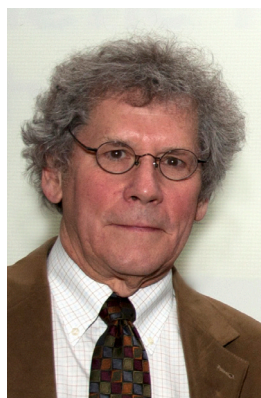


## Genomics in Medicine Lecture Series Opener Explores Individualized Medicine

By Raymond MacDougall

Traditionally, medical school training has emphasized appropriate treatments for the average patient. Yet, experienced physicians know that each patient is unique, with distinct responses to treatment and varying complications.

Dr. David L. Valle, director of the McKusick-Nathans Institute of Genomic Medicine at Johns Hopkins University, explored this paradox from



Dr. David L. Valle

the genomic perspective as the first speaker in a 7-lecture series, Genomics in Medicine, held recently at Suburban Hospital. The lectures, which will be held monthly through July, are sponsored by the National Human Genome Research Institute, in collaboration with Suburban and Johns Hopkins University School of Medicine.

"We have an opportunity to move medicine from a very successful level to a new plateau," Valle said. "I think the way we will do that is by individualizing medical care."

Valle participated in the Human Genome Project, completed in 2003, and continues to discover surprising insights from the genome. Once the reference human genome was decoded, researchers turned their attention to understanding genetic variation. They created a map of common variations in the human genome based on haplotypes, which are blocks of genetic variants inherited together. The HapMap was completed in 2005.

Since then, advances in understanding human variation have progressed with the 1,000 Genomes Project. The goal of this current effort is to compile the genomes of 2,500 individuals from around the world and to catalog at least 90 percent of the most common genetic variations.

"We can look forward to having a pretty good handle on all the genetic variations we have in common," Valle said. "We will continue to find rare [genetic] variation going forward."

Valle will contribute to this effort as principal investigator on a recently announced rare disease project. NHGRI has awarded \$16 million to three institutions to sequence thousands of genomes of people with rare disorders. The project's goal

is to identify genetic variants responsible for rare disorders, facilitate rapid and accurate diagnosis of such disorders and, eventually, develop new therapeutic approaches.

Such a goal is possible due to declining costs in sequencing and faster sequencing speeds, Valle said. The cost of sequencing 1 million high-quality DNA base pairs has steadily declined, from \$10,000 in the year 2000, to \$1 in 2011. Faster sequencing speeds mean that in 2011, 30,000 human genomes were sequenced and will be available in databases, as opposed to 2010, when only 25 to 30 human genomes were sequenced and available.

The wave of progress will affect how doctors treat disorders and prescribe drug therapies, said Valle, particularly regarding drug dose and response. Individualized medicine has already determined some cancer treatments. For example, acute lymphoblastic leukemia, the most common form of childhood cancer, is cured in the great majority of children using currently available medications, but there are serious side effects. Researchers are now studying how to reduce these effects by better understanding genetic variations responsible for drug metabolism and response.

For more information about the Genomics in Medicine lecture series, visit [www.genome.gov/27546022](http://www.genome.gov/27546022).

## NIH Hosts American Indian/Alaska Native Workshop

A group of NIH communicators recently hosted a half-day workshop on "Reaching Out to Urban Indians: Best Practices in Communications and Partnerships."

Sixty-one percent of American Indian/Alaska Natives live in urban areas; urban Indians are frequently disconnected from reservation-based social networks, health services and spiritual resources. The workshop was organized to help participants appreciate the histories and cultural identities of urban Indians across the country, better understand the health care issues facing them and identify partnership opportunities and best practices for health communications to reach this population.

Keynote speaker D'Shane Barnett (Prairie Chicken clan of the Mandan tribe), executive director of the National Council of Urban Indian Health, described American Indian migration from reservation lands to the cities. Much of this migration was not voluntary, often resulting in a displaced people with little to no resources in their new environment. Barnett discussed health issues facing the urban Indian population, including increased infant mortality rates, heart disease, cancer, deaths due to unintentional injury, chronic liver disease and diabetes.

Barnett also described the challenges inherent in designing national campaigns to reach the more than 567 tribes federally recognized across the United States, each possessing a unique culture and background.

The workshop concluded with recommendations including a need to form partnerships with the Indian Health Service, the Bureau of Indian Affairs, urban Indian health programs and urban Indian health and community centers. Conferees agreed there is no "one-size-fits-all" approach when reaching out to urban Indians; successful efforts will recognize that this is a diverse community with a rich variety of cultures and backgrounds.



Panelists at *Reaching Out to Urban Indians: Best Practices in Communications and Partnerships* included (from l) Dr. Kristen Nadeau of the University of Colorado-Denver; John Burklow, NIH associate director for communications and public liaison; Wilbur Woodis, HHS Office of Minority Health; D'Shane Barnett of the National Council of Urban Indian Health; Dr. Jami Bartgis, also of NCUH.

## OFFIT

CONTINUED FROM PAGE 1



*"There is much at stake," Offit said, "and we need to get in the game. The problem is not simply a matter of scientific illiteracy. I think it's worse than that—I think it's denialism. Science is increasingly seen as just another voice in the room, which is a dangerous idea."*

PHOTOS: MICHAEL SPENCER

diseases and director, Vaccine Education Center, Children's Hospital of Philadelphia and Maurice R. Hilleman professor of vaccinology and professor of pediatrics at the University of Pennsylvania School of Medicine, did not begin his career aiming to be a weightlifter or mythological hero (although he did once yearn to fly like Superman). He spent 25 years studying rotavirus protein structure and function, eventually helping create an effective vaccine that endured a 4-year, \$350 million, 72,000-child study conducted in 11 countries.

But all of that work stood to be undone when risk of a rare but serious side effect was, for a time, felt to outweigh an ocean of benefit. Today, however, RotaTeq is recommended for universal use in infants.

At a Clinical Center Grand Rounds "Great Teachers" edition on Dec. 14, Offit explained how he made the transition from vaccine crafter to vaccine defender before a packed Lipsett Amphitheater that included—as if to underscore the hazards of his new role—an appearance by a stalker.

"I certainly was naïve when I took on this role," he admitted. But there was no avoiding the mission once he learned two things: how hard it is to make a vaccine and "how easily a vaccine could be damned." His outrage became the source of his advocacy.

Offit said he created the Vaccine Education Center in the late 1990s after a paper published in *The Lancet* by Dr. Andrew Wakefield claimed that the MMR (measles, mumps, rubella) vaccine caused autism. The study, rejected by four of the six editors who reviewed it but championed by the editor-in-chief, only included 13 subjects and overlooked the fact that almost 90 percent of the children in the U.K. had had the MMR vaccine, with no correspondingly high rate of subsequent autism.

But Wakefield, Offit said, was charismatic and persuasive and was able to frighten the public into avoiding use of the MMR vaccine for years, during which time children suffered infections that could have been prevented.

"You could argue that [Wakefield's paper] killed children," Offit said, adding that editors and the media who spread his claim were similarly culpable. Despite mountains of evidence indicating that MMR vaccine does not cause autism, "it's hard to un-ring the bell.

"It's hard to watch how bad science did the kind of damage it did," Offit added. Thousands of parents in the U.S. and abroad abandoned the use of an effective, safe vaccine. Offit said that in Europe, from January to October 2011, there were 26,000 cases of measles and 9 deaths. In 2011, there were at least 200 cases of measles in the U.S. "It's unconscionable, and completely avoidable."

In a talk he titled "Communicating Vaccine Science to the Public," Offit shared some hard-won observations from his years defending the methods and fruits of scientific investigation.

First, journalism's mantra of balance—equal time for opposing views—can be irresponsible and harmful. Offit said that several years ago on *Meet the Press*, the late Tim Russert featured Institute of Medicine president Dr. Harvey Fineberg on the topic of vaccine safety, countered by an author who not only had no vaccine expertise, but also was a shill for an anti-vaccine group.

"In the name of balance, Tim Russert did nothing to educate his viewers," Offit charged.

Regarding the news media, Offit said, "You think their job is to educate. It's not. It's to entertain."

Offit says he often calls or writes journalists when he finds them in error and urged other scientists to do the same. He once confronted the executive producer of an ABC-TV news magazine about correcting an egregious misrepresentation of hepatitis B vaccine safety. The producer told him, "Our job is to be interesting. If it also happens to be true, great."

Offit said scientists are "also up against the limits of the scientific method," as it is impossible to prove the null hypothesis: "Technically, an epidemiologic study can never provide absolute proof," he said. (Nor does the fact that, at age 5 and emulating the flight posture of TV's Superman Offit never actually lifted off, thereby prove him incapable of flight.) "Nevertheless, I think it's fair to say that MMR [vaccine] doesn't cause autism—and I can't fly."

Offit lamented a cultural milieu in which "anecdote trumps epidemiology," as when a famous actress can convince millions that her son's autism was caused by a vaccine. If emotion can effectively sell false notions, then scientists better be willing to employ emotion to counter falsehood, he argued. "We need to frame what we're saying in an emotional, impactful way," he said.

Humor can also be used to deflate hokum, he



said, as when *The Colbert Report* host Stephen Colbert (whose dad used to be a prominent NIH scientist, Offit pointed out) skewers hooey by embracing it so ardently.

“Our biggest challenge, however, is that the media doesn’t understand science,” Offit concluded. “It’s a fluid, self-correcting way of thinking, not a belief system.”

Concepts of causality—simple cause-and-effect—can be hard to communicate, he said, in a culture where 50 percent of the population believes in astrology, 46 percent believe in ESP and 35 percent believe in ghosts.

“There is much at stake,” Offit said, “and we need to get in the game. The problem is not simply a matter of scientific illiteracy. I think it’s worse than that—I think it’s denialism. Science is increasingly seen as just another voice in the room, which is a dangerous idea.”

Controversies over global warming, population control, pollution and fluoridation tend to be belief-based, but should be evidence-based, he said. “Vaccines are not a belief system. They stand on a mountain of evidence to support their use.”

He finished with a prescription for the profession: stand up for science, no venue is too small, don’t let bad information go unchallenged and “don’t assume other people are doing it—they’re not. Scientists have a responsibility to the public.”

During a brief Q&A, Offit urged his fellow scientists to “fight the good fight,” and “inform people of the consequences of non-vaccination. Make that come alive—the unneeded suffering and death.” Offit was also challenged by a young man identifying himself as a local graduate student who rose in defense of Dr. Andrew Wakefield.

After fielding the young man’s questions in increasingly measured tones, Offit explained, “One of the consequences of what I do is that sometimes you get hate mail, sometimes you get sued, and now I have a stalker.” This particular student, he said, “often makes disparaging comments about me at national meetings as well as on the Internet.”

Publicly identified as a nuisance, the man stormed out of Lipsett Amphitheater and slammed the door. 🚪



*New fellows are (clockwise from above) Dr. Chuxia Deng, Dr. Marjorie Robert-Guroff, Dr. Dolph Lee Hatfield, Dr. James Melvin, Dr. Mary Wolpert-DeFilippes, Dr. Caroline Philpott and Dr. Larry Akio Nagahara.*



## Seven NIH’ers Named AAAS Fellows

Seven NIH scientists are among 539 members of the American Association for the Advancement of Science recently named as AAAS fellows. These individuals will be recognized for their contributions to science and technology at the Fellows Forum to be held Feb. 18 during the AAAS annual meeting in Vancouver. The new fellows will receive a certificate and a blue and gold rosette as a symbol of their distinguished accomplishments.

From the section on biological sciences: Dr. Chuxia Deng, senior investigator and chief, mammalian genetics section, Genetics of Development and Disease Branch, NIDDK; Dr. Dolph Lee Hatfield, chief, molecular biology of selenium section, Laboratory of Cancer Prevention, NCI; Dr. Caroline C. Philpott, chief, genetics and metabolism section, Liver Diseases Branch, NIDDK.

From the section on dentistry: Dr. James E. Melvin, clinical director, NIDCR.

From the section on engineering: Dr. Larry Akio Nagahara, acting director, Office of Physical Sciences-Oncology, NCI.

From the section on medical sciences: Dr. Marjorie Robert-Guroff, senior investigator and chief, section on immune biology of retroviral infection, Vaccine Branch, NCI.

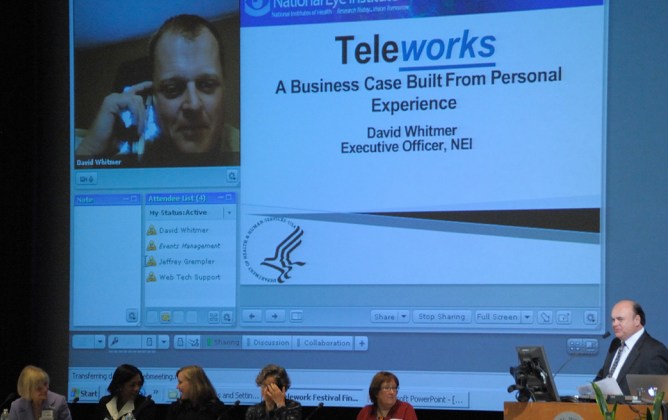
From the section on pharmaceutical sciences: Dr. Mary K. Wolpert-DeFilippes, chief, Grants and Contracts Operations Branch, NCI.

## MIT’s Berger To Give Pittman Lecture, Feb. 1

Dr. Bonnie Berger, professor of applied mathematics and computer science at the Massachusetts Institute of Technology and associate member of the Broad Institute of MIT and Harvard, will present the annual WALS Margaret Pittman Lecture on Wednesday, Feb. 1. Her topic is “Computational Biology in the 21st Century: Making Sense Out of Massive Data.”

Berger’s major areas of research have been in applying mathematical techniques to problems in molecular biology. In particular, she has focused on four areas: comparative genomics, protein structural motif recognition and discovery, molecular self-assembly and mis-assembly, and functional genomics.

The Pittman Lecture, begun in 1994, is given by a researcher dedicated to advancing and improving the careers of women scientists.



## TELEWORK

CONTINUED FROM PAGE 1

### **Above, from 1:**

From his home in Florida, NEI's Dave Whitmer (on screen) joins a panel via teleconference.

Tom Hayden learns whether his commute to work is "green."

Guest speaker Howard Kelsey of HHS discusses telework and carbon footprints.

### **Below:**

NIGMS's Kimberly Allen (l) and Julie Broussard Berko of OHR talk about making telework work.

### **Bottom:**

Employees visit telework resource exhibits.

PHOTOS: BILL BRANSON, ERNIE BRANSON



ning soccer goal. *Mama said there'd be days like this.*

By contrast, Sarah's workday was idyllic. She slept a little later, but was still able to not only fit in a morning exercise but also fix her husband pancakes for breakfast. She logged in to work on time, in leisure clothes and slippers.

By the end of her workday, she'd consulted several times by phone, instant message or email with her coworkers, prepared herself a healthy lunch, fielded a good-news phone call from her personal doctor and planned a pot roast for her family's favorite supper.

"Wow, that was a really productive day," Sarah concluded. "You know, maybe it's okay that I'm not getting a pay raise for a couple of years, because I'm at least saving time, money, gas, wear and tear on my car. I feel like it's a pretty good deal."

In case you haven't caught on, Sarah teleworks. Leo does not. When the two (and a troupe of coworkers) performed their fictional days on stage at the first NIH Telework Festival a few weeks ago, their differences—and the event's message—could not have been clearer.

"Telework works, not just for the employee but also for the organization," said Christine Major, director of NIH's Office of Human Resources, which coordinated the festival.

### **Making the Case**

NIH principal deputy director Dr. Lawrence Tabak examined telework from a scientist's perspective. He presented data aimed particularly at managers and supervisors who have been reluctant to consider implementing telework.

"I could sum up the most compelling case for telework in one acronym—BRAC," he said. [The Department of Defense's base realignment and closure—BRAC—effort relocated major components of Walter Reed Army Medical Center to the grounds of National Naval Medical Center, which is just across the street from NIH's main campus.]

Estimates show that as of September 2011 data, more than 307,000 fewer trips are being made

by employees to the NIH campus because of telework, Tabak noted.

Offering staff the opportunity to work offsite has numerous positive effects: costs and energy savings, relief of traffic and congestion, workforce recruitment and retention, continuity of operations and emergency planning, as well as increased employee morale and productivity.

"According to Telework Exchange, if all eligible federal employees teleworked 2 days per week, the federal workforce would collectively save 3.3 billion dollars and 2.7 million tons of pollutants annually," he concluded, citing a public-private organization that provides research and other resources on working offsite. "The overwhelming case for telework is strong."

### **Reducing Environmental Impact**

Howard Kelsey, HHS deputy assistant secretary for facilities management and policy, echoed the importance of limiting our carbon footprint on the planet.

"If you're participating in a telework program," he pointed out, "then you're helping to reduce the greenhouse gas emissions. There is a connection between health and sustainability and telework and the environment. By teleworking and reducing our impact on the environment, we also support our health mission."

About 34 percent of NIH's workforce uses an alternative work schedule, he noted. The department average is about 24 percent, "so NIH as usual is leading the pack."

"You can make a difference by participating in telework, alternative work schedules, taking public transportation or using HOVs [high-occupancy vehicle lanes]," Kelsey concluded. "You all are making a difference every day. Some days, you can do that from home."

### **Early Adopters Give Endorsement**

NINR director Dr. Patricia Grady described "a year in the life of an institute coming to grips with introducing a new policy."

"We have successfully integrated telework into our organizational culture and our operations," she said. More than half of NINR employees—55 percent—work from home at least once a week.



That's an increase of 150 percent since September 2010, when the institute first rolled out its policy, she said. Another 21 percent telework on an ad hoc basis as do all 23 members of its critical response team. About 76 percent of the NINR workforce has some kind of telework agreement in place.

"Not to say that there haven't been hurdles to overcome," Grady said, describing some of the challenges NINR faced and conquered with training and other resources. "Successful telework really does depend on responsible participation of both management and staff. We've found that telework does improve the health of individuals, communities and families. [As a result], we have been and will continue to be committed to making the policy work."

### Outstanding Ideas Lauded

Awards were announced for the "What's Driving Telework" poster contest and for various NIH and departmental "green" initiatives. In later simultaneous workshops, managers discussed "How to Keep the Mission Moving and Driving Towards Excellence" and practical ways of "Making Telework Work for You."

"It's helped me compartmentalize my life between work and family," said one panelist, NEI Executive Officer Dave Whitmer, a nearly 7-year telecommuter who happened to be at work that day from his home in Florida. "Telework has helped me become a better manager of telework."

Throughout the event, attendees could wander around the many resource exhibits, view a poster session on various aspects of worklife management or take in any of several technology demonstrations. NIH'ers can view the entire event, which is archived online in segments under Past Events at <http://videocast.nih.gov/>.

"We consider it a significant achievement for NIH to have been chosen [in 2010 by IBM's Center for the Business of Government] as a cutting-edge agency for its successful telework program," said Colleen Barros, NIH deputy director for management, noting a number of honors the agency has collected for its achievements in human resources.

"While we're very proud of our accomplishments with telework, we have much more that can and should be done to promote the program and to get people on board with it. [Today's festival tells] how telework is good for employees, but also good for management and good for NIH." 🗣️



*Attendees at the NIAMS Coalition 2011 outreach and education meeting*

### NIAMS Coalition Convenes Outreach, Education Meeting

More than 50 individuals representing 40 organizations recently attended the NIAMS Coalition 2011 Outreach & Education Meeting: Creating Connections for Science, at the Bethesda Marriott. The coalition is a group of more than 70 professional and voluntary organizations concerned with NIAMS programs.

The meeting "provides a unique forum for organizations representing a wide array of patients, advocates, researchers and medical professionals to exchange and gather best practices and to ensure that we speak with a unified voice toward our shared goal," said Annie Kennedy of the Muscular Dystrophy Association and outgoing co-chair of the coalition.

NIAMS director Dr. Stephen Katz provided a state-of-the-institute address focused on the mission and budget and outcomes from the American Recovery and Reinvestment Act of 2009. He also commented on ongoing research, organizational activities and partnerships.

"Every voice does count," said Katz. "You are our best links to the community."

NIH deputy director for science, outreach and policy Dr. Kathy Hudson updated participants on the National Center for Advancing Translational Sciences at NIH. She spoke of the need "to figure out new ways to get across the valley of death," referring to the barriers of cost, time and high failure rates that often hinder new drug development. She also provided examples of how NCATS can help generate innovative methods and technologies to enhance the development, testing and implementation of diagnostics and therapeutics.

John Burklow, director of NIH's Office of Communications and Public Liaison, and Pat White, director of NIH's Office of Legislative Policy and Analysis, gave their perspectives on communicating the merits of biomedical research. "We want to make sure that when people read about all the great discoveries that we have supported, they make the connection to NIH," said Burklow. "We must explain the relevance of science and demonstrate the connections among science, researchers and the impact that NIH research has on the community level."

White said NIH is working to educate new and veteran members of Congress through interactive meetings and events, finding "emerging champions" and emphasizing NIH's contributions to future economic growth and global competitiveness. "Once you can make the argument, people see the importance of NIH," said White.

Afternoon breakout sessions were offered on public/private partnerships, navigating the NIH grants process, making adjustments during difficult financial times and effective use of social media. 🗣️

## STRAUS LECTURE

CONTINUED FROM PAGE 1



*Said Dr. Sean Mackey, “While we can’t prescribe a passionate love affair every 6 months for our patients, we can encourage them to engage in similarly rewarding experiences with the knowledge that it will have a pain-relieving effect.”*

PHOTO: LISA HELFERT

Americans. Vicodin, a highly addictive opioid, has become the nation’s most prescribed drug. “We need better solutions,” he urged. Pain is now understood to be not only a symptom, he added, but a disease entity in its own right. Many factors control an individual’s pain experience, from genetics, to early life experiences, to how much fear and anxiety a person may have.

Since pain is fundamentally an experience generated and processed in the brain, neuroimaging is opening windows to the brain, thereby deepening our understanding of pain. For example, Mackey said, we can see enduring effects of pain as accelerated loss of the brain’s gray matter over time. Importantly, treatment can reverse some changes, which could provide invaluable biomarkers to assess treatment effects.

“Voluntary brain mechanisms,” Mackey noted, “can also play a part in managing pain.” His team has found, for example, that real-time fMRI and specific cognitive strategies—such as “reappraisal” of one’s situation—can be used to train patients to control or “pump up” the activity of specific brain regions, including those involved in controlling pain. The consequence could be a decrease in pain reports.

The human connection can also play a role in managing pain. In one study, Mackey’s team found that participants who were in the early, intense stage of romantic love had a decreased response to a pain stimulus, similar to pain-killing drugs. Additionally, they found that the pain-relieving effects of passionate love engaged regions in the brain rich in our own endogenous painkillers as well as regions rich in dopamine, a neurotransmitter involved with reward and motivating behavior. “While we can’t prescribe a passionate love affair every 6 months for our patients,” Mackey said, “we can encourage them to engage in similarly rewarding experiences with the knowledge that it will have a pain-relieving effect.”

Dr. Josephine Briggs, NCCAM director, noted, “A number of complementary health practices are now showing promise in the management of chronic pain, such as acupuncture, massage, spinal manipulation, yoga and progressive relaxation for chronic low-back pain. Overall, however, while there has been progress in our scientific understanding, the need remains for improved pain-management strategies to help address this very debilitating and costly problem.”—Ellen O’Donnell

# milestones



## NINDS’s Hirtz Receives CNS Award

The Child Neurology Society (CNS) recently honored Dr. Deborah Hirtz, a program director in the NINDS Office of Clinical Research, with the 2011 Hower Award, which recognizes a

pediatric neurologist who has made a significant contribution to the field and has greatly contributed to the understanding of childhood neurological disorders through research, teaching and leadership.

Hirtz was honored for the profound impact she has had on child neurology, neuroscience and the welfare of children. The CNS meeting program mentioned several examples of her contributions, including her most highly cited publication (232 citations)—a report on the NINDS workshop on perinatal and childhood stroke. The report “built a fire” that continues to fuel the effort to make childhood stroke as preventable and treatable as some forms of adult stroke have become.

Hirtz has been instrumental in developing many evidence-based practice guidelines for neurologists. Also noted was Hirtz’s mentorship of clinical investigators, as well as her ability to organize clinical studies that have an impact on practice.

According to CNS, “It is very clear that Dr. Hirtz’s efforts have played an extraordinary role in organizing, guiding and financing the substantial improvement in the quality of both the clinical and scientific enterprises of child neurology.”

The Hower Award is one of the major international honors in pediatric neurology. It was established in 1974. In addition to her work at NINDS, Hirtz also has been a clinical consultant in child neurology to the Montgomery County Children’s Specialty Services.





*Dennis Rodrigues*

## Online Branch's Rodrigues Retires after 35 Years

*By Rich McManus*

Dennis Rodrigues, chief of the Online Information Branch in the Office of Communications and Public Liaison, OD (translation: he has been chiefly responsible for the NIH home page virtually since its inception) retired Dec. 2 after 35 years at NIH. His career slalomed down the face of arguably the two largest waves in modern NIH history—the HIV/AIDS epidemic and the technological revolution that ushered in common use of desktop computers and the Internet.

A native of Baltimore who earned an undergraduate degree in biology at Towson University, Rodrigues began his association with NIH as a contractor in 1972, taking advantage of NCI's ramped-up reliance on contractors as the "War on Cancer" got under way. He spent 4 years at Litton Bionetics in Rockville before joining the Laboratory of Cell Biology, NCI, under the leadership of Dr. Lloyd Law.

After 4 years as a technician in that lab, during which he learned about advances in immunotherapy, he joined the NIH Management Intern Program, a year-long training experience that included four rotational assignments.

"I really liked doing lab work, but unfortunately you could only go so far as a lab tech," he remembers. He was tempted to earn a Ph.D., and took some graduate science courses at FAES and the University of Maryland, chiefly in immunology. But with his first child newly born, he opted for a more secure career as a federal employee.

During his MI year, he discovered that he "really liked working in areas outside the lab." His last rotation, in the old Office of Program Planning and Evaluation in Bldg. 1, exposed him to high-level policymaking at NIH. "I got to know a lot about NIH and how it worked," he said.

In the early 1980s, word processing machines predominated as the successor to the typewriter at NIH. Frustrated with having to compile trans-NIH reports from a variety of incompatible machines, Rodrigues employed the old WYLBUR mainframe as a "text-file dump" for consolidation of material. That was his introduction to computers.

"I was around when PCs were introduced to the workplace," he remembers.

Because of his knowledge of immunology, he began handling inquiries to NIH on a newly discovered disease affecting gay men. "I became heavily involved with NIH's response to AIDS from a Bldg. 1 perspective," he recalls.

Rodrigues joined the Office of AIDS Research at a time when the office grew dramatically as NIH responded to the worldwide epidemic. Later he joined the Office of NIH History, mainly to participate in a project documenting NIH's response to the AIDS epidemic.

Back then, the history office was part of NIH's communications office, which at the time was grappling with how to use the nascent Internet as a communications platform. Rodrigues' interest in electronic bulletin boards as a hobby meshed with NIH's need to adopt the new technology.

"It was a happy circumstance," he recalls. "I was the right person to be there at the right time."

Rodrigues can trace the origins of NIH's home page from the scientific challenge it once was for programmers at the old Division of Computer Research and Technology in 1993, through its Gopher era, "which was like the web, but did not include photos—it was a text-based hyperlink system," to the first version of Mosaic, which was among the first browsers to debut on the World Wide Web.

"I became the resident go-to person on how we can use computers as communications tools," remembers Rodrigues, who by around 2000 found himself chief of a new online branch. "I didn't start off my career wanting to run NIH's web site, because the web itself did not yet exist."

NIH hosted some of the first federal web sites, and many campus experts were among the first to promote the adoption of the World Wide Web. "We had some real pioneers here," Rodrigues said.

Cooperating with colleagues from across campus, Rodrigues "helped decide what content to put on the early servers administered by DCRT." He participated on many committees and work groups that guided the design and information architecture for NIH's web site.

His biggest achievements? "Maintaining the overall quality of NIH's presence on the web," he said. "We've always gotten high marks from others who have looked at it. I am also proud to have encouraged the NIH community at large to strive for excellence. We've brought in speakers, conducted knowledge exchanges and engaged in community-building with the ICs. We've also adopted metrics tools and analysis, so we're not just speculating about how to make [the NIH site] better."

Rodrigues' boss, NIH Associate Director for Communications and Public Liaison John Burklow, said Rodrigues was a campus authority on web matters. "People from across NIH came to him, wisely, for sage advice," he said. Burklow's deputy, Dr. Marin Allen, said Rodrigues was highly respected and had a gift for collegiality, not only with fellow NIH'ers but also with HHS.

Rodrigues says he leaves reluctantly. "NIH has been an amazing place to work," he said. "I've had such a good group to work with and NIH is an energizing, fun place to be, with all these amazing intellects. That's probably the hardest thing to step away from. It's a great work environment."

He says he'll also miss the NIH Fitness Center. "I am proud of my membership. It's a really valuable resource and helped keep me mentally fresh and alert. It's nice to be able to practice what you preach."

Rodrigues plans to take some time off and then pursue opportunities in the private sector and consulting work in 2012. 📍

# feedback

Have a question about some aspect of working at NIH? You can ask anonymously at [www.nih.gov/nihrecord/index.htm](http://www.nih.gov/nihrecord/index.htm) (click on the Feedback icon) and we'll try to provide answers.

**Feedback:** If NIH should suffer a power outage, will the security gates continue to function? Also, why were the gates not allowing people to enter/exit during the [Aug. 23, 2011] earthquake?

**Response from the Office of Research Services:** The security gates should continue to function since they are connected to buildings that have back-up emergency power.

Moments after the earthquake, it was a management decision to shut down access to campus and the perimeter was secured to prevent inbound visitors. Inbound exceptions to the campus were processed through the Commercial Vehicle Inspection Facility on a case-by-case basis. With the buildings being evacuated and checked for damage, there was no place for visitors to go. Vehicle exits and full-height revolving pedestrian gates remained available for egress. All badge readers were operational during the entire event.

**Feedback:** The new federal-wide ID card is accepted by other departments, but visitors to the NIH campus from other departments cannot use their card to enter without being screened like all other visitors. Why is that?

**Response from ORS:** The long-term plan for interoperability of federal ID badges has not been met by most federal agencies. For security reasons, agencies have visitor policies they utilize to determine how to process visitors, including those from other federal agencies. At NIH, our current policy is to recognize other HHS ID badges. Until the long-term interoperability of federal IDs is fully implemented, the recognition of other federal ID badges will vary from agency to agency.

**Feedback:** Why do contractors receive the same parking privileges as federal staff? Why do fed staff have to compete with contractors for the same parking space? I arrive very early. I have yet to be able to park remotely close to my building in general parking because contractors have taken over! I realize contractors are valued and are contributing to the NIH mission.

However, they are not fed staff and should not receive the same benefits fed staff enjoy. Distinctions in parking should be made just like you do with carpool, red and handicap. Why not require contractors to park in Lot 41 (by NLM)? Granted there are some instances where contractors must park close to the building such as construction crews, contractors for Bldg. 1, contractors that work night shift perhaps. Maybe in these instances ICs could receive a small percentage of general parking stickers for contract staff that they can issue on a case-by-case basis. Remember, feds have been beaten up lately with having COLAs frozen and the many proposals to change retirement and health care benefits. Surely NIH could support its fed staff by prioritizing parking.

**Response from ORS:** First, it's important to distinguish between the various types of contractors that work on the NIH campus. There is one group of short-term contractors, such as construction workers that, as a general rule, are not issued parking permits. If they park on campus, they either park in the visitor lots, paying a daily fee, or park illegally and are subject to ticket and towing.

The second group are those individuals who are here on a longer-term basis and often provide the same type of work as their federal colleagues and have a permanent duty station on the NIH campus. These individuals are eligible to obtain a parking permit, pursuant to approval by the respective IC where they work. Off-campus contract employees are not eligible for on-campus parking permits.

NIH regularly considers numerous parking arrangements including setting aside blocks of space, but even these create a problem when trying to determine a fair percentage. As an example, would a smaller IC receive less than a larger IC? In addition, the more these special cases are approved, it only encourages more requests for additional special arrangements. Identifying the space and location becomes problematic as well. And, if the set-asides aren't utilized, the entire process becomes counter-productive as space sits idle while others driving by attempt to find a space.

Finally, it's important to remember that contractors are not allowed to participate in the NIH Transshare program or the NIH bicycle subsidy program due to federal regulations.

The overall parking policy at NIH is guided by Manual Issuance 1410 (<http://oma.od.nih.gov/manualchapters/management/1410/>). It is reviewed and updated periodically to satisfy the NIH mission and benefit the agency as a whole.



## When Nature Is the Painter

*Is it wrong to find beauty in deterioration? There are a number of fire hydrants on campus where the default artist has become time itself. Sun, cold and moisture work more relentlessly than any virtuoso; what we call "weathering" produces a pleasing variegation in color and texture. Which hue came first on these sun-bitten canisters? We know to whom the final strokes belong.*

PHOTO: RICH MCMANUS





NINDS director Dr. Story Landis (third from l) welcomes advisory council members (from l) Dr. Kevin St. P. McNaught, Dr. David D. Ginty, Paul H. Gross, Dr. David M. Holtzman and Dr. Ben A. Barres.

## NINDS Welcomes New Council Members

Four new members have joined the National Advisory Neurological Disorders and Stroke Council, which serves as the principal advisory body to NINDS regarding the institute's research program planning and priorities.

Dr. David D. Ginty is a Howard Hughes Medical Institute investigator and a professor of neuroscience at Johns Hopkins University School of Medicine. He has made important contributions to understanding the assembly and function of the nerves and circuits underlying the sense of touch.

Paul H. Gross is chairman of the board and acting director of technology for the Hydrocephalus Association, a nonprofit organization that seeks to stimulate innovative research on hydrocephalus and to support people affected by the condition.

Dr. David M. Holtzman is the Andrew B. and Gretchen P. Jones professor and chairman of the department of neurology at Washington University School of Medicine in St. Louis and associate director of the university's Alzheimer's Disease Research Center. He has conducted groundbreaking studies on Alzheimer's disease and hypoxic-ischemic brain injury.

Dr. Kevin St. P. McNaught is vice president for medical and scientific programs at the Tourette Syndrome Association. He guides the nonprofit association's development, implementation and management of medical, scientific and therapeutics research and forges collaborations with the pharmaceutical industry.

In addition, Dr. Ben A. Barres, who earlier this year had accepted an interim appointment to the advisory council, has been reappointed to serve a complete 4-year term. He is chair of the neurobiology department at Stanford University School of Medicine and focuses on the interaction between neurons and glial cells in the nervous system.



## McGowan Receives Distinguished Service Award

*The American Society for Bone and Mineral Research (ASBMR) recently awarded the Shirley Hohl Distinguished Service Award to Dr. Joan McGowan (l), director of NIAMS's Division of Musculoskeletal Diseases. The honor is given annually to an individual "whose activities best represent the dedicated and unselfish devotion in service to the society and its mission and goals as exemplified by Shirley Hohl, the ASBMR's founding executive secretary." McGowan, who accepted her award at the society's annual meeting in San Diego, was recognized for having made significant contributions to ASBMR's mission. Highlighted were her pivotal roles in the NIH Consensus Development Conference on Osteoporosis*

*Prevention, Diagnosis and Therapy; the NIH Women's Health Initiative; and the Surgeon General's Report on Bone Health and Osteoporosis.*



## Overweight Volunteers Needed for Study

NICHD is looking for men and women, ages 35-70, who are overweight and have abnormal glucose and triglyceride (form of "bad" cholesterol) levels. After an initial screening visit for general health assessment, participants will undergo treatment with a cortisol-blocking medication (mifepristone) or a non-active pill (placebo) for 7 days. Each participant will take both study agents with a gap of 6 to 8 weeks between the two. Testing before and after treatment with the study medications will include blood drawing over 24 hours, urine collection, an intravenous glucose tolerance test and 1- to 2-day overnight inpatient stay. Compensation will be provided. For more information, call 1-800-411-1222 (TTY 1-866-411-1010) and refer to study 11-CH-0208.

## Diet Study at NIH Needs Females

NIH is sponsoring a study to see if the balance of fats in a controlled diet influences appetite and body composition. Female volunteers, 18-50 years old and overweight but generally in good health, are invited to participate. Participation involves a 3-month commitment to eat a research diet, daily visits Monday through Friday to the Clinical Center to eat breakfast and pick up study foods and 6 outpatient testing visits. Some participants will be asked to stay overnight in the hospital for additional testing. Study-related foods and tests will be provided at no cost. Compensation will be provided. You will not be able to participate if: you are pregnant or have given birth within the past 2 years, you are participating in another study involving blood draws or you have dietary limitations or food allergies. For more information, call 1-877-888-4448 (TTY 1-866-411-1010). Refer to study 11-AA-0028.

## Midlife & Menopause Research Studies

Women ages 40-65 who struggle with irritability, anxiety, sadness or loss of enjoyment at the time of the menopause transition are invited to participate in outpatient research studies. There is no cost for participation. Compensation may be provided. Phone (301) 496-9576 and refer to study 88-M-0131.

## Midlife & Menopause Research Studies Seek Healthy Volunteers

Healthy women ages 40-65 are invited to participate in outpatient research studies. Compensation is provided. Call (301) 496-9576 and refer to studies 88-M-0131 and 03-M-0175.

## Clinical Center Alumni

### Scientist Sisters Join Intramural NINR

By Ray Bingham

Everyone's favorite indulgence and treat, chocolate, is increasingly recognized for its heart-healthy properties due to the high amounts of flavonoid compounds. These micronutrients promote beneficial effects on blood vessel function, antioxidant activity and immune response.

Nurse scientists and sisters Drs. Mary and Marguerite Engler have conducted studies exploring the effects of dark chocolate and cocoa, as well as a wide range of other dietary components, on cardiovascular function and related physiologic properties. Their research has improved our understanding of the complex links between diet and health.

Both scientists started their clinical careers locally, first as critical care nurses at Suburban Hospital, then at the Clinical Center in the Cardiac Surgery Branch, NHLBI. Both pursued graduate studies at American University and Georgetown University, receiving Ph.D.s in physiology. For over 20 years, they have been with the University of California, San Francisco, School of Nursing as professors, where they built programs in teaching and research. Now, they have returned to the area as senior clinicians in the NINR Intramural Research Program.

Their 2006 paper in *Nutrition Reviews* provided an in-depth discussion of the cardiovascular and other health benefits associated with flavonoids found in cocoa, as well as other foods and beverages such as berries, cherries, beans, red wine, tea and even celery and broccoli. The various components are thought to play many roles, including promoting vasodilation to improve blood flow and lower blood pressure; inhibiting platelet aggregation that can lead to circulatory blockages; and modulating the inflammatory response to decrease arterial plaque development.

As they wrote, "It would be practical to advise consumption of a wide range of flavonoid-rich foods and beverages, especially those that contain substantial amounts of the same flavonoids...found in cocoa and dark chocolate." Few would argue that point.

The Englers developed an interest in research while working as clinical nurses in the CC. Dr. Marguerite Engler's first published study involved the effects of various intravenous therapy devices on patient complications. In



New NINR intramural senior clinicians Drs. Mary (l) and Marguerite Engler

PHOTO: MICHAEL SPENCER

her doctoral studies, she investigated the role of both omega-3 and omega-6 fatty acids on blood pressure regulation. Later, she was funded by NINR as a PI for the international, multidisciplinary Endothelial Assessment of Risk from Lipids in Youth (EARLY) study. Her recent research has focused on the effects of the Mediterranean diet and omega-3 fatty acids on vascular health in hyperlipidemic children.

Dr. Mary Engler's early nursing career at the CC included research on the effects of magnetic resonance imaging on intravenous infusion devices. From there, her primary research focus has been on nutritional interventions and vascular biology in the prevention and treatment of cardiovascular disease. She has led NINR-funded studies on the vascular effects of omega-3 fatty acids (the main bioactive components of fish and fish oil) and the mechanisms of how they relax smooth muscle and promote blood flow. She served as a co-investigator in the EARLY study and co-PI with her sister on recent studies with the Mediterranean diet and omega-3 fatty acids. She was also among the first to investigate the vascular benefits of small daily doses of dark chocolate in healthy adults.

The Englers have been widely published and have received numerous awards for their research, teaching and leadership. They each bring a unique perspective to their research and hope to further their studies at NINR.

Marguerite, who will work in the cardiovascular symptoms unit, has a particular interest in the role of nutrition and diet in helping improve cardiovascular health for children with conditions that make them at high risk for atherosclerosis. She will also continue her work using non-invasive tests of arterial function and explore new biomarkers for cardiovascular disease.

Meanwhile, Mary, working in the vascular biology unit, plans to further her studies in the area of nutritional genomics, examining the interaction between nutrition and the human genome and the molecular-genetic events underlying tissue injury and cardiovascular disease risk. She is also looking to reduce risk factors of cardiovascular disease and improve symptom management through personalized nutrition.

Both are also looking forward to collaborating with the Biobehavioral Branch to study the effects of changing lifestyle behaviors, such as promoting healthy lifestyles and diet choices, on overall health. 🍫